

FIG. 1

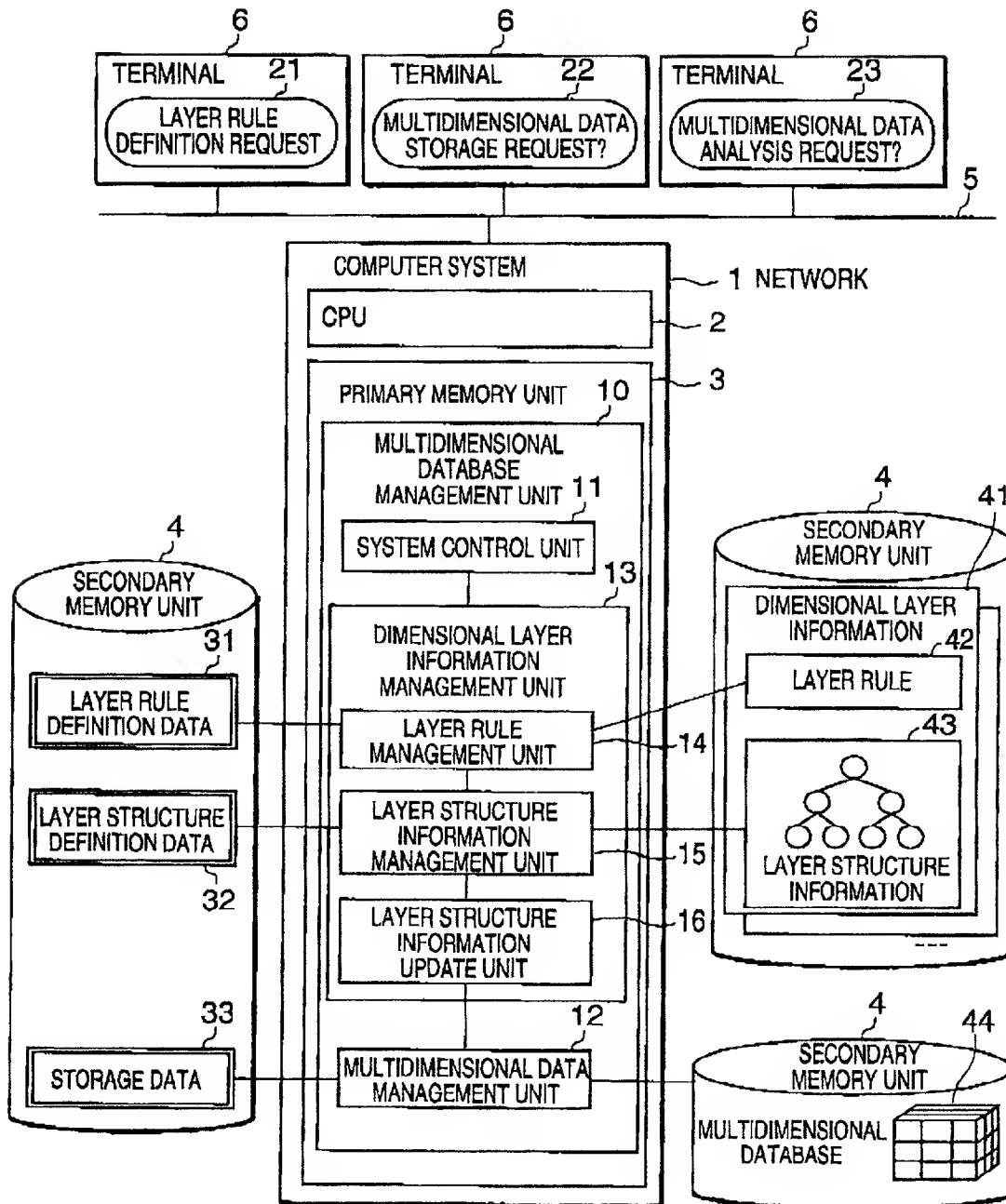


FIG.2

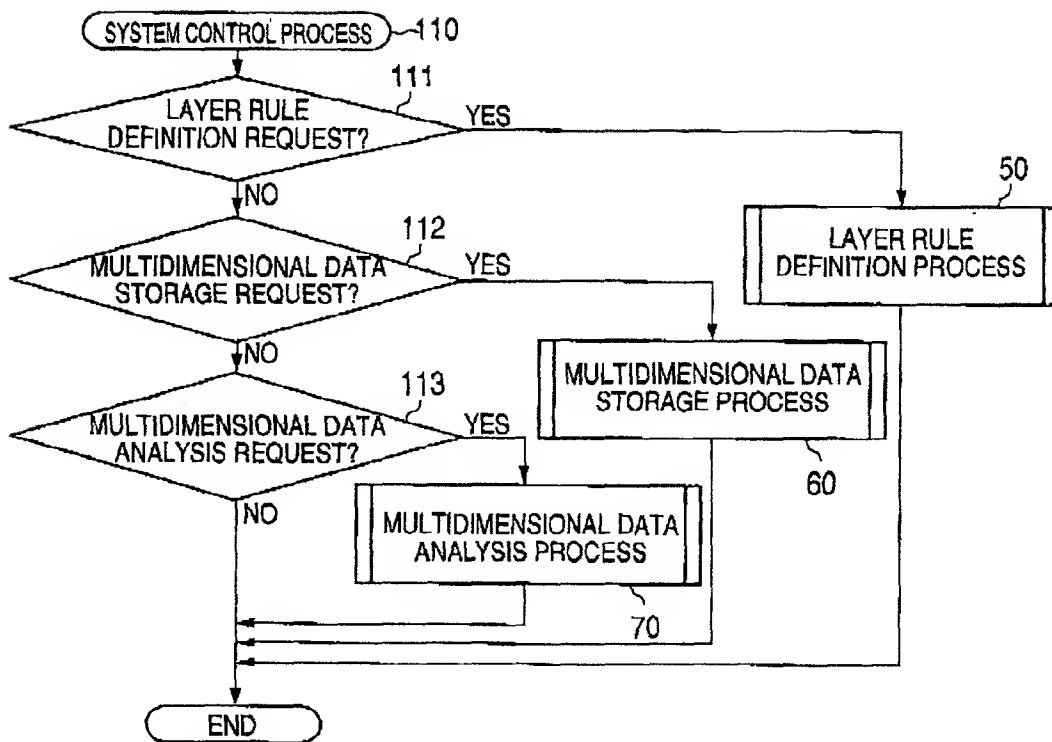


FIG.3

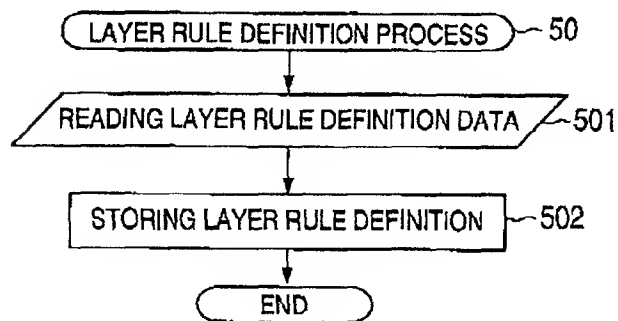


FIG.4

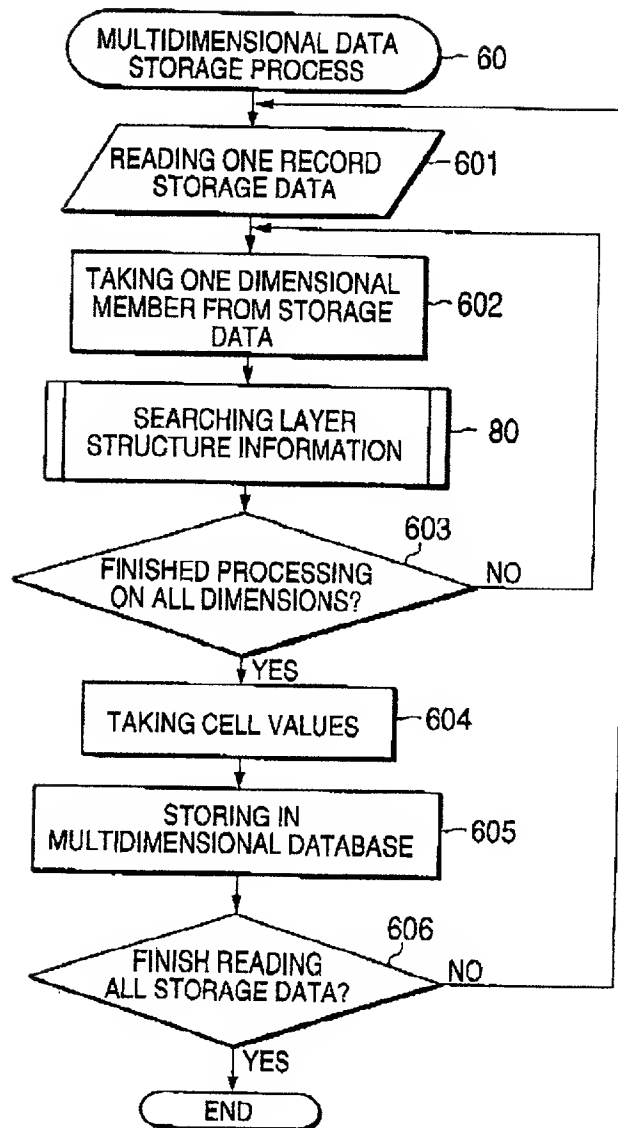


FIG.5

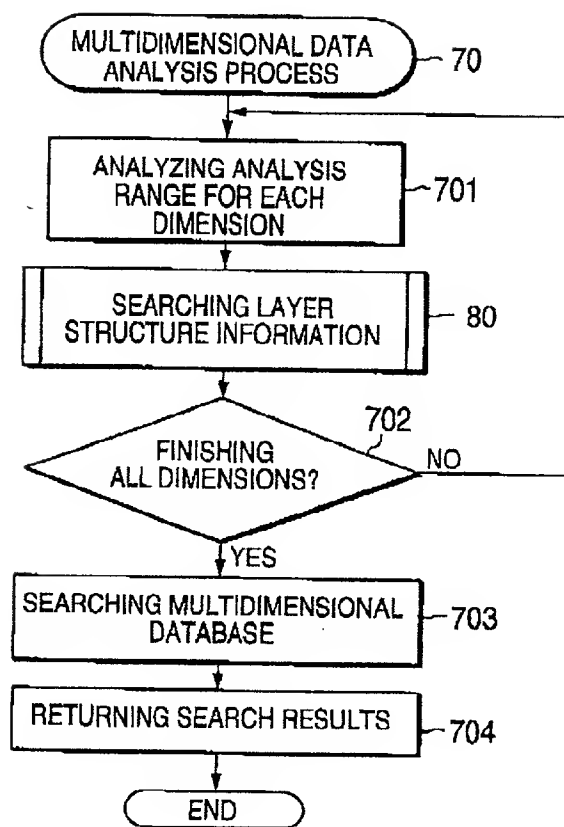


FIG.6

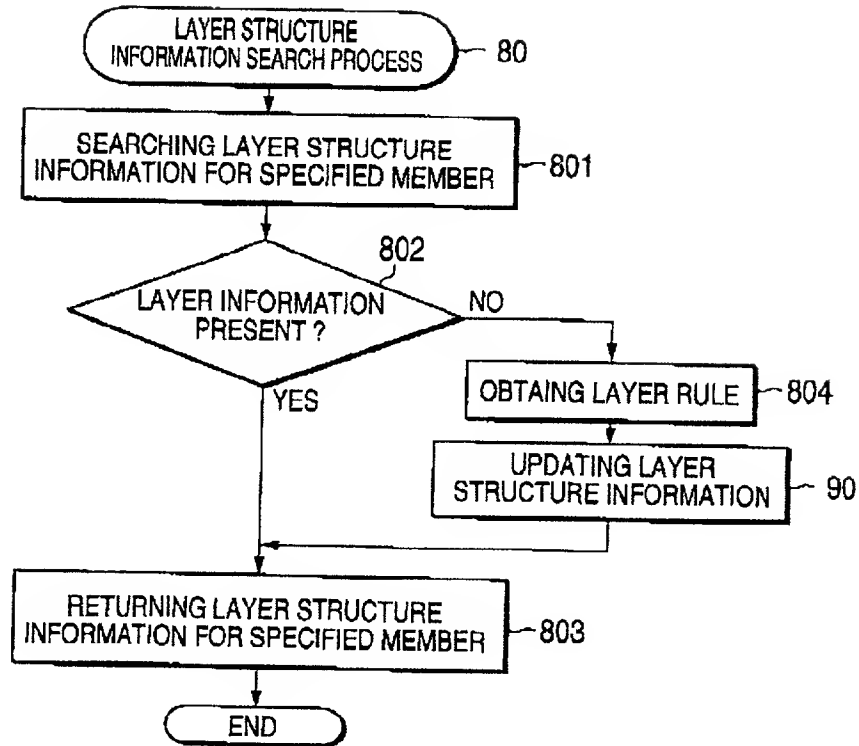


FIG.7

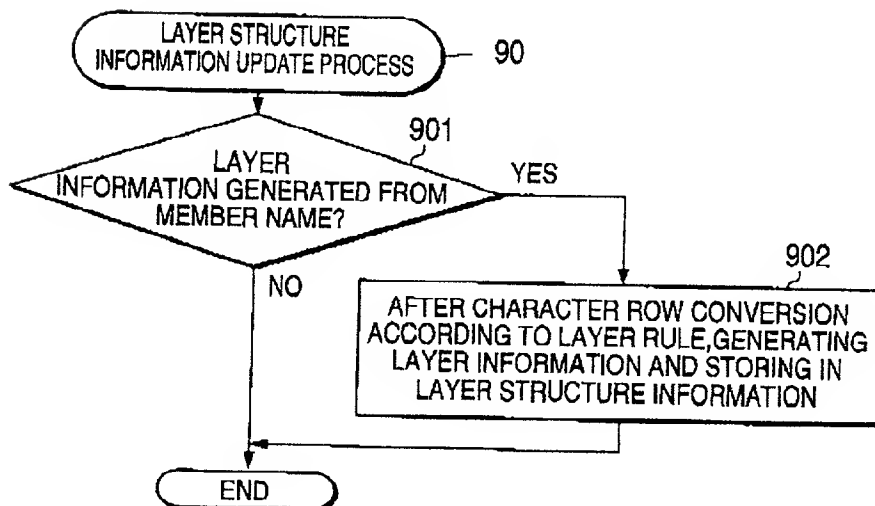


FIG.8

TIME DIMENSIONAL LAYER RULE DEFINITION DATA 3110

```
#LAYER RULE :  
#AFTER CHARACTER ROW CONVERSION ON MEMBER, OBTAINING LAYER INFORMATION  
  
FROM MEMBER NAME  
LEVEL10= $ MEMBER NAME  
LEVEL11={  
    S/¥(.... ¥)0[123]/¥1Q1/  
    S/¥(.... ¥)0[456]/¥1Q2/  
    S/¥(.... ¥)0[789]/¥1Q3/  
    S/¥(.... ¥)1[012]/¥1Q4/  
}  
LEVEL12={  
    S/¥(.... ¥)..¥1/  
}
```

FIG. 9

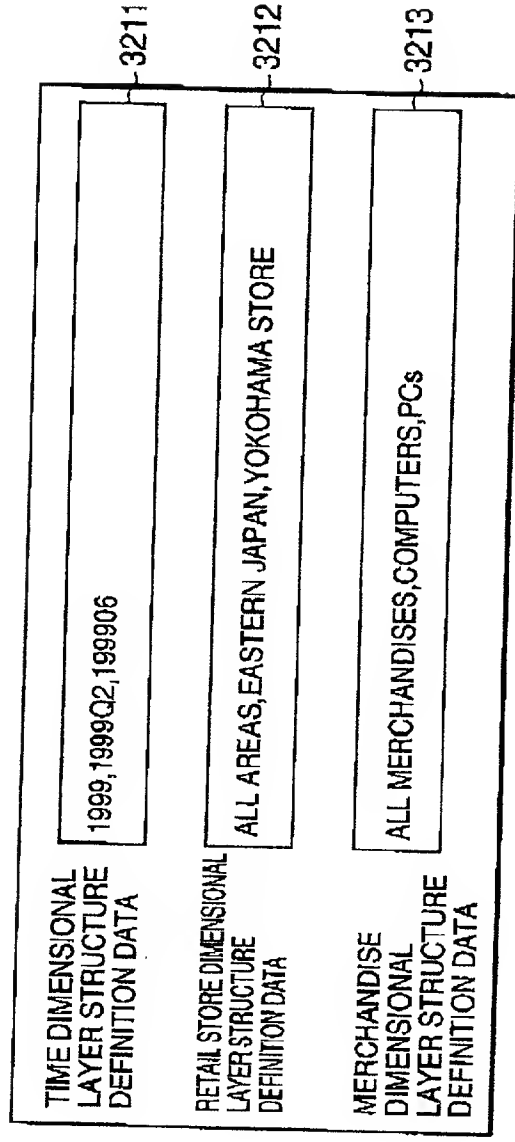


FIG.10

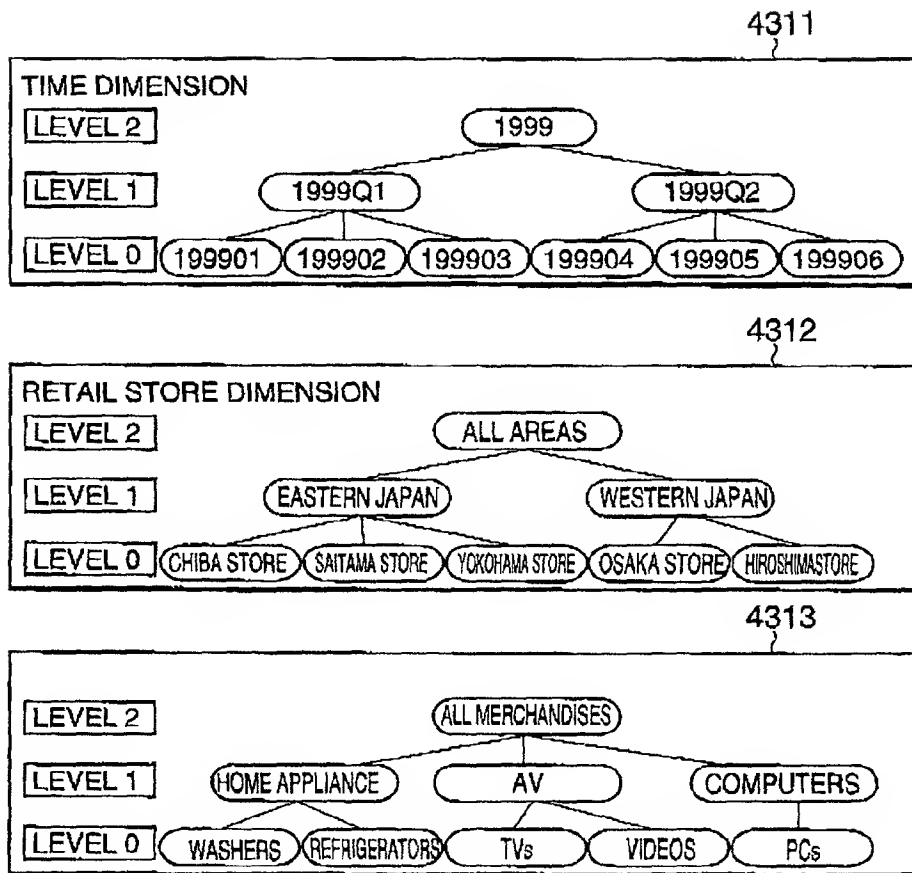




FIG.11

RETAIL STORE DIMENSIONAL LAYER RULE DEFINITION DATA

3120

#LAYER RULE :

#OBTAINING LAYER INFORMATION FROM CSV FORMATTED FILE

FROM FILE,CSV FILE

LEVEL0=COLUMN 3

LEVEL1=COLUMN 2

LEVEL2=COLUMN 1

FIG.12

3126

ALL AREAS,EASTERN JAPAN,CHIBA STORE

ALL AREAS,EASTERN JAPAN,SAITAMA STORE

ALL AREAS,EASTERN JAPAN,YOKOHAMA STORE

ALL AREAS,WESTERN JAPAN,OSAKA STORE

ALL AREAS,WESTERN JAPAN,HIROSHIMA STORE

FIG.13

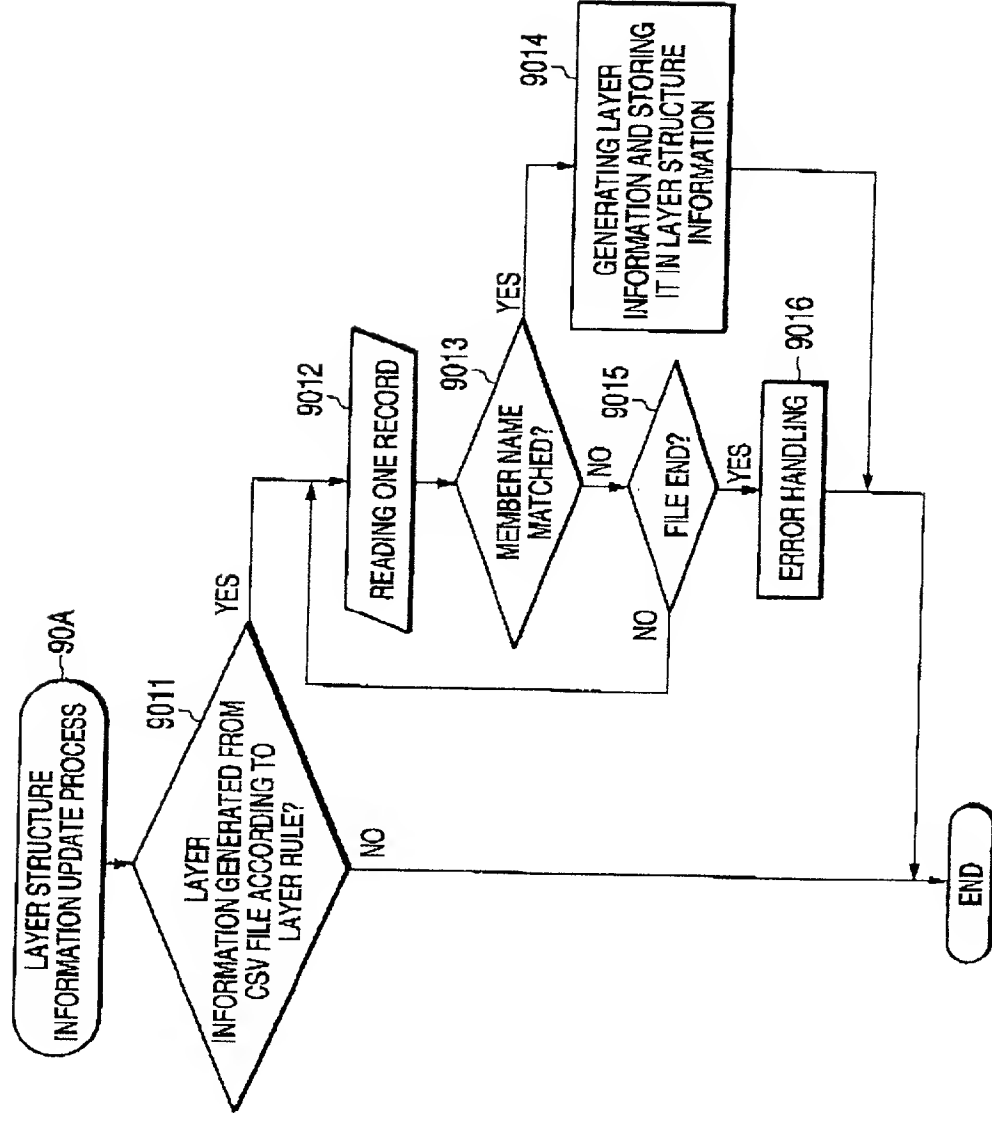
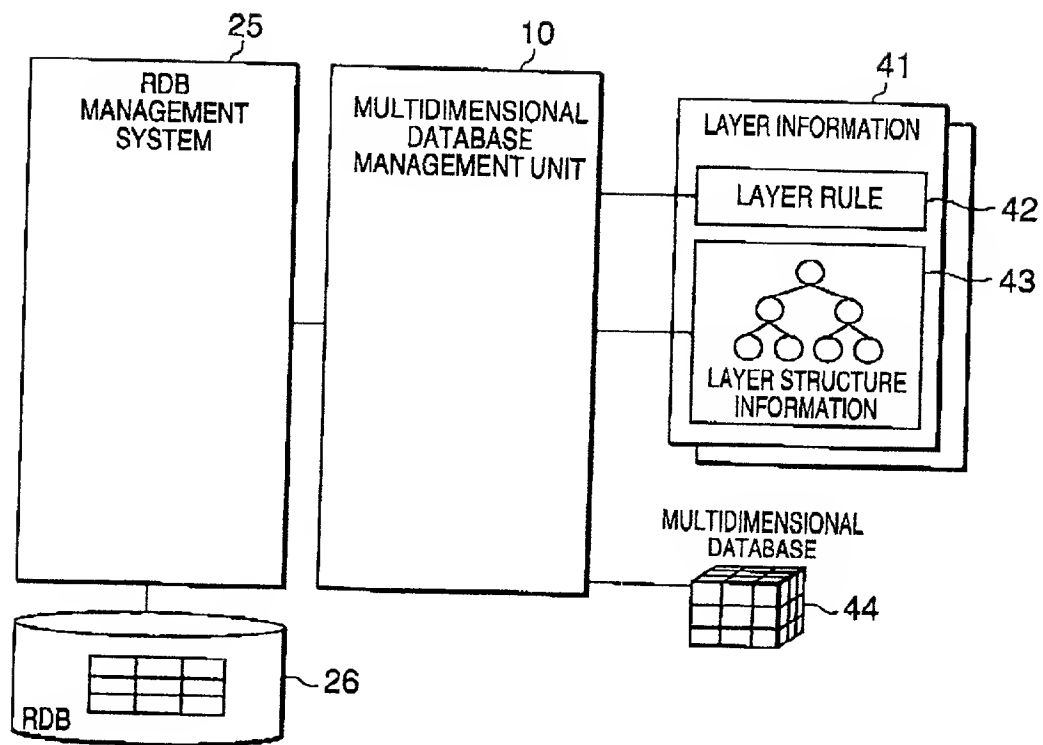


FIG.14



# FIG.15

3130
MERCHANDISE DIMENSIONAL LAYER RULE DEFINITION DATA
#LAYER RULE : RDB PRODUCT MASTER LIST
#OBTAINING FROM COL1,COL2
FROM RDB PRODUCT MASTER LIST
LEVEL 0=SMALL CLASSIFICATION
LEVEL 1=LARGE CLASSIFICATION
LEVEL 2="ALL MERCHANDISE"

# FIG.16

## CONTENT OF RDB PRODUCT MASTER TABLE

LARGE CLASSIFICATION	SMALL CLASSIFICATION
HOME APPLIANCE	WASHERS
HOME APPLIANCE	REFRIGERATORS
AV	TVs
AV	VIDEOS
COMPUTERS	PCs

261

FIG.17

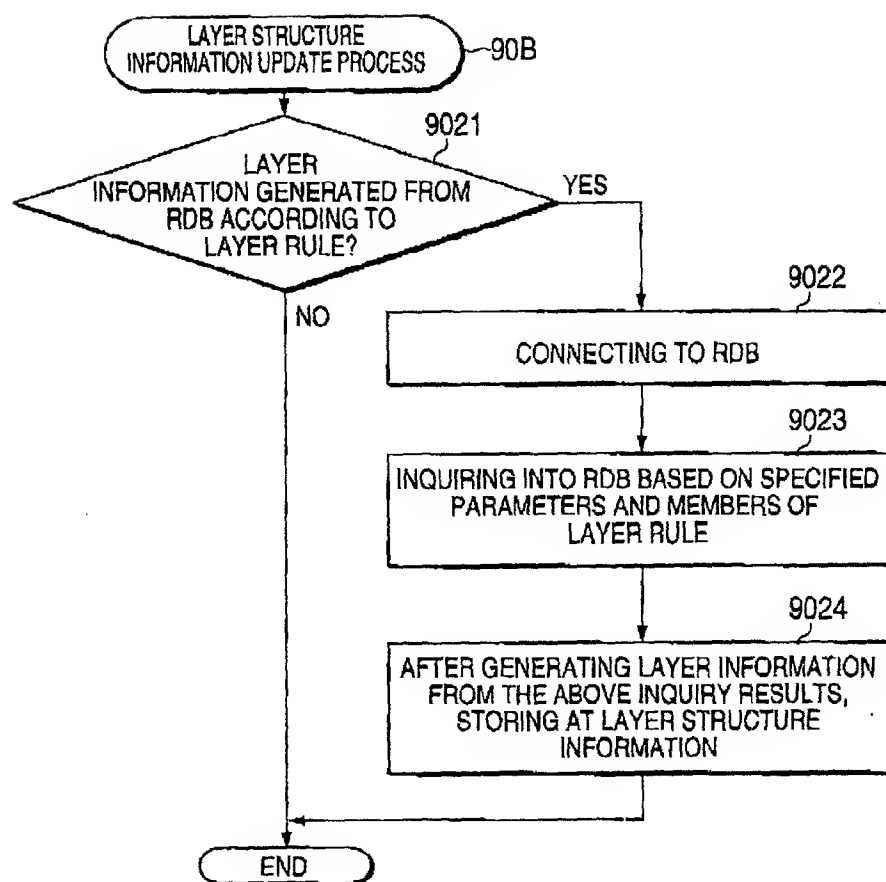


FIG.18

4310

TIME DIMENSION  
(WITHOUT LAYER STRUCTURE INFORMATION)

4302

RETAIL STORE DIMENSION

LEVEL 2

ALL AREAS

LEVEL 1

EASTERN JAPAN

WESTERN JAPAN

LEVEL 0

CHIBA STORE

SAITAMA STORE

OSAKA STORE

HIROSHIMASTORE

4303

LEVEL 2

ALL MERCHANDISES

LEVEL 1

HOME APPLIANCE

AV

LEVEL 0

WASHERS

REFRIGERATORS

TVs

VIDEOS

4304

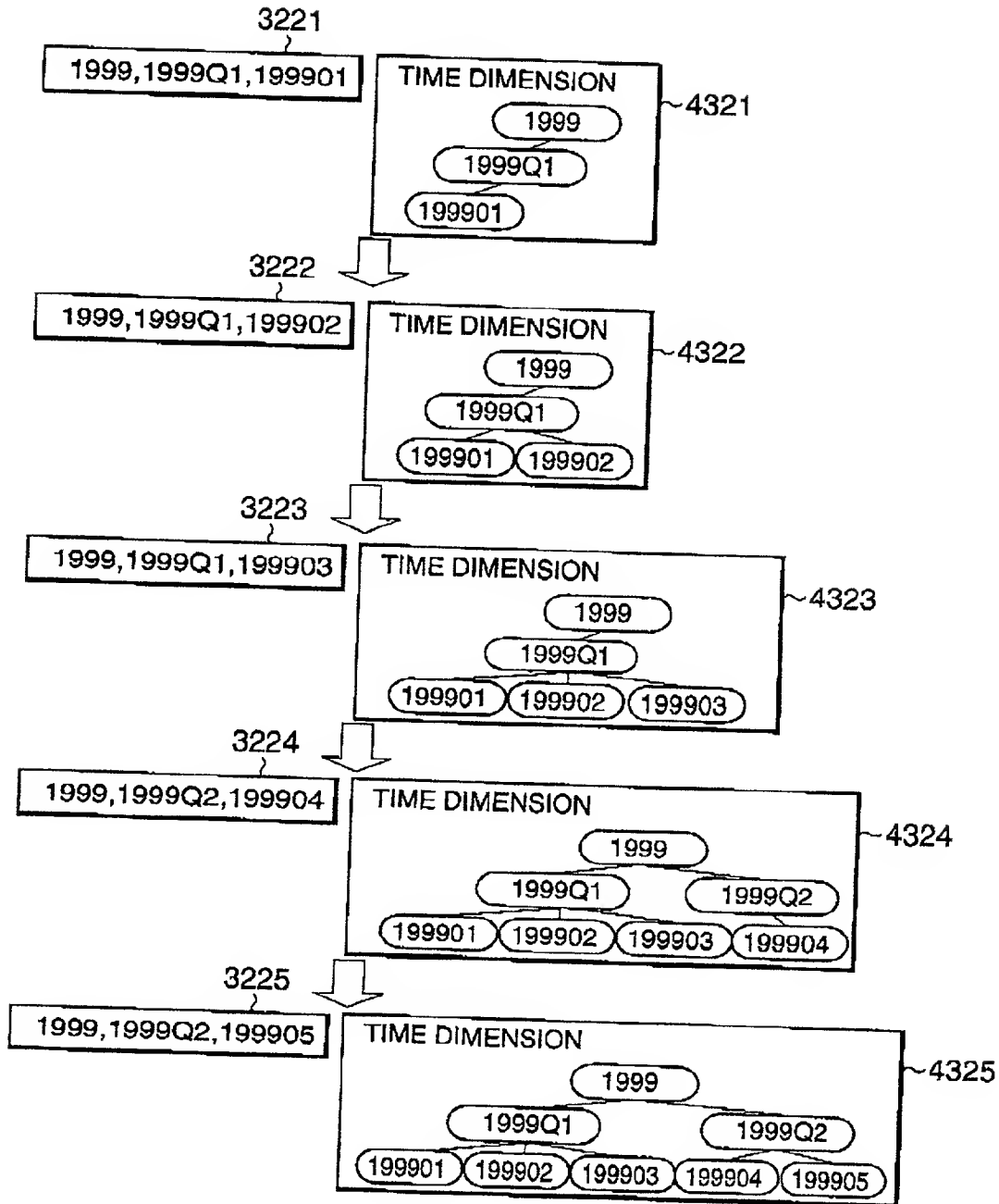
UNIT DIMENSION(WITHOUT LAYER)

LEVEL 0

SALES UNIT

SALES AMOUNT

FIG.19



# FIG.20 PRIOR ART

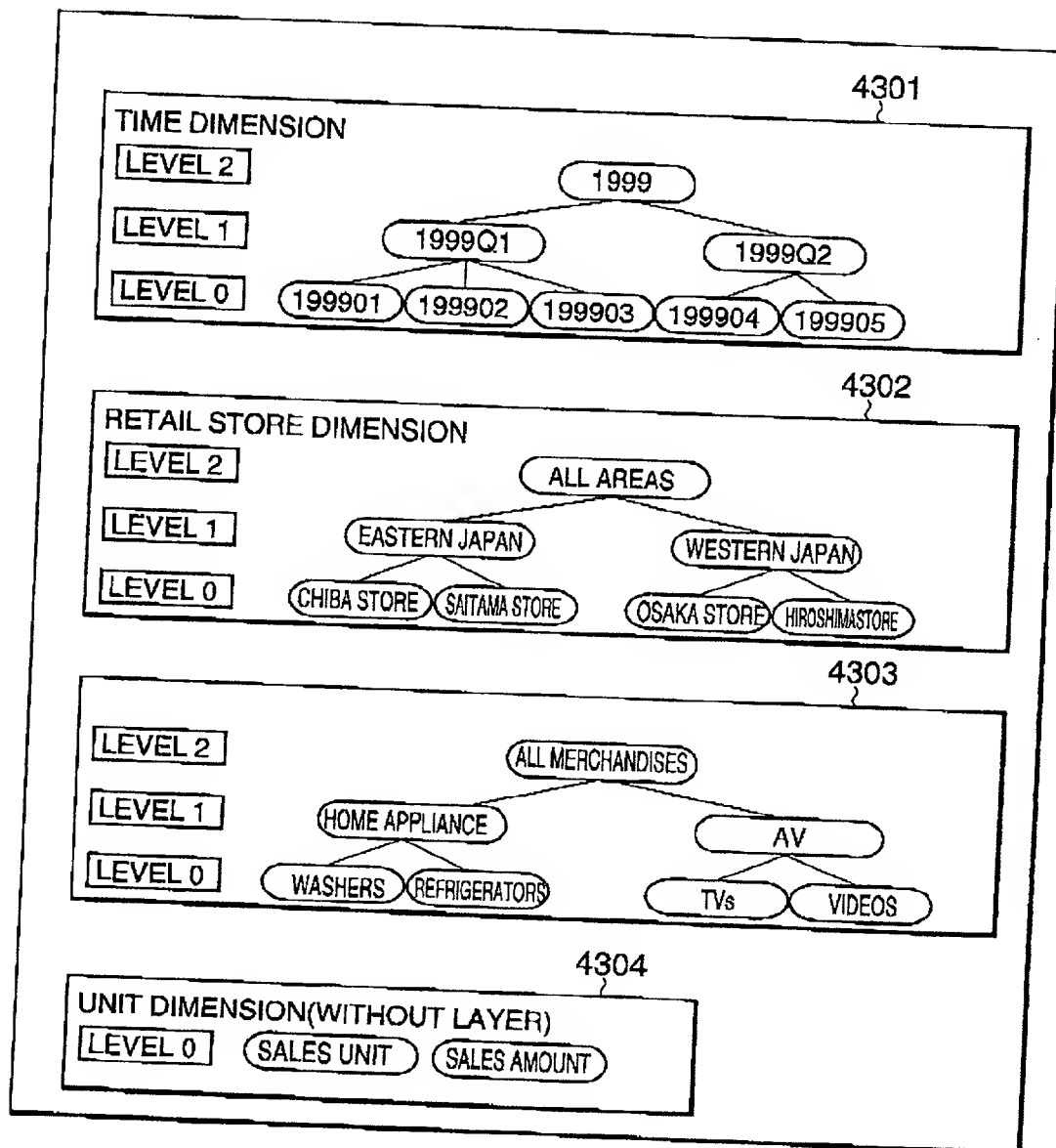
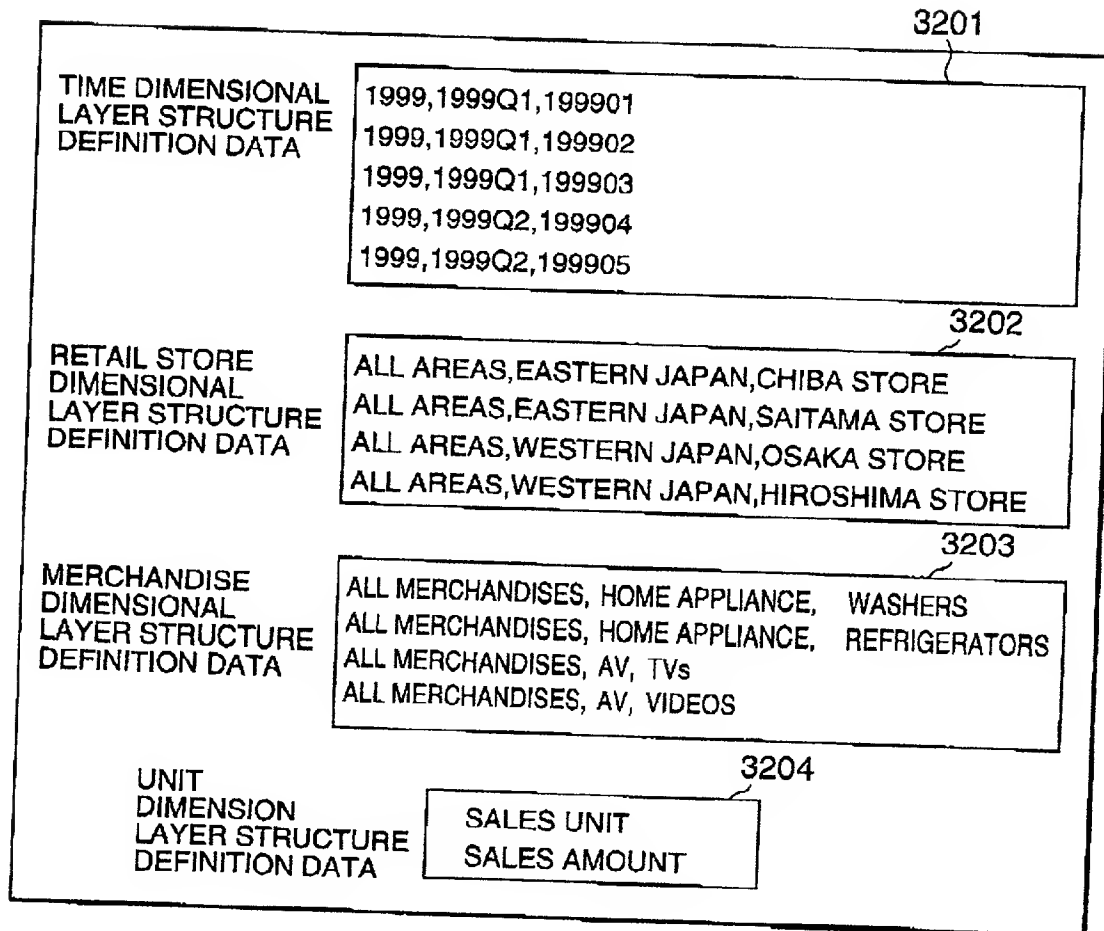




FIG.21 PRIOR ART



## FIG.22 PRIOR ART

3301

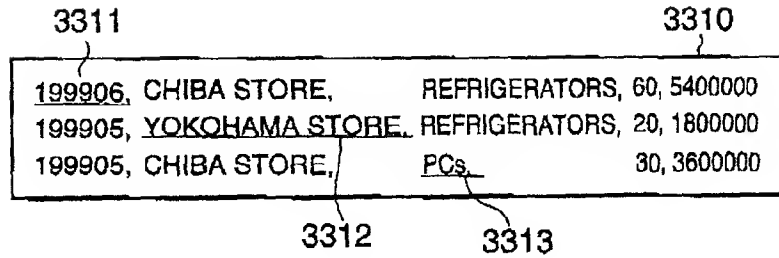
199901, SAITAMA STORE,	TVs,	22,	2420000
199901, OSAKA STORE,	REFRIGERATORS,	15,	1350000
199902, HIROSHIMA STORE,	VIDEOS,	42,	2940000
199902, SAITAMA STORE,	WASHERS,	21,	1680000
199903, CHIBA STORE,	VIDEOS,	33,	2310000
199904, HIROSHIMA STORE,	REFRIGERATORS,	18,	1620000
199905, CHIBA STORE,	TVs,	45,	4950000

⋮

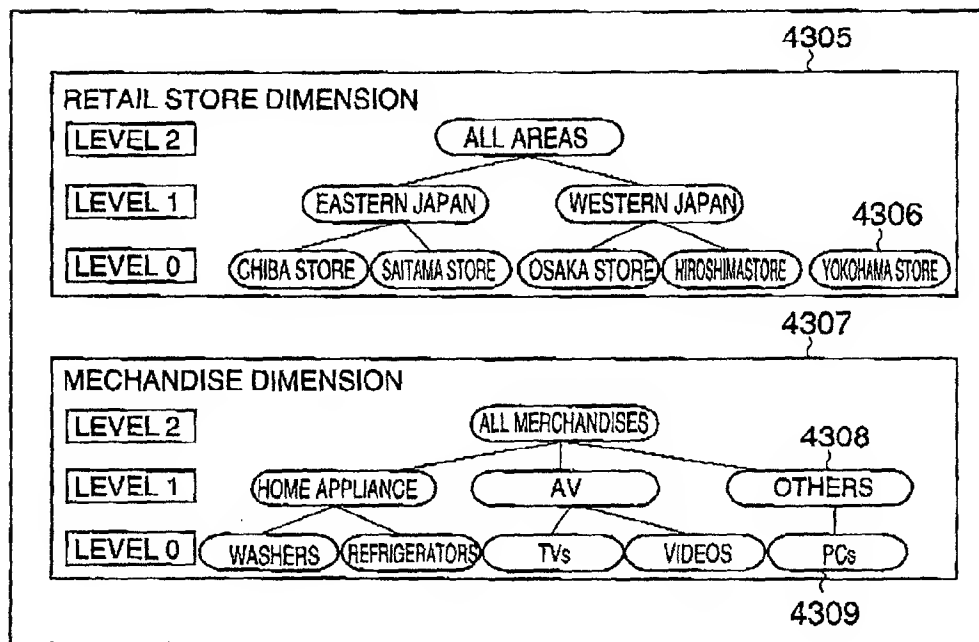
Patent 6,611,660



# FIG.24 PRIOR ART



# FIG.25 PRIOR ART



# FIG.26

## RETAIL STORE DIMENSION LAYER DEFINITION DATA

#MAIN LAYER RULE: #SEQUENTIALLY APPLYING SUBRULES APPLYING SUBRULE STORE_RULE1 APPLYING SUBRULE STORE_RULE2	3140
#SUB LAYER RULE :STORE_RULE1 #FROM CSV FILE,OBTAINING LAYER INFORMATION FROM FILE,CSV FILE1 LEVEL 0=COLUMN 3 LEVEL 1=COLUMN 2 LEVEL 2=COLUMN 1	3141
#SUB LAYER RULE:STORE_RULE 2: #AFTER CHARACTER ROW CONVERSION ON RETAIL STORE, OBTAINING LAYER INFORMATION FROM MEMBER NAME LEVEL 0= \$ MEMBER NAME LEVEL 1={ S/¥(.JAPAN¥). \$ / ¥ 1/ } LEVEL 2={ ALL SALES TERRITORIES }	3142

# FIG.27

3340

199901, EASTERN JAPAN SAPPORO STORE,TVS,17,1870000  
199902, HIROSHIMA STORE,VIDEOS,42,2940000  
199903, EASTERN JAPAN SAPPORO STORE, REFRIGERATOR,15,1350000

FIG.28

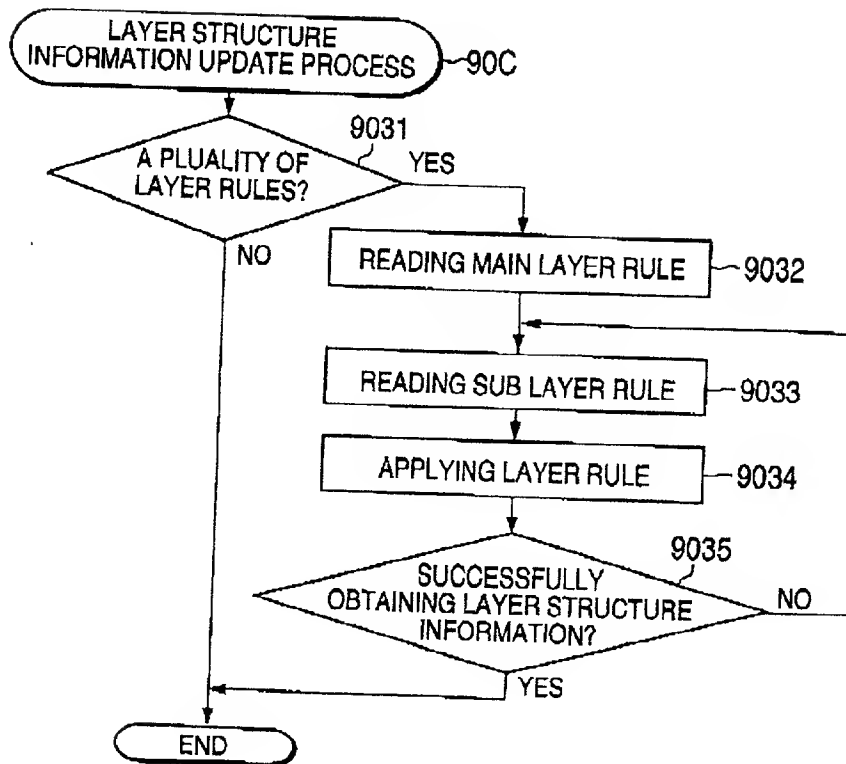


FIG.29

